

t16_wellord1
(TMMYc7Ai5C2zgFS8DquNV9t1Q1CUkrbhqJ5)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v6_relat_2 : \iota \Rightarrow o$ be given. Let $k2_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_relat_1 : \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (k4_tarski X0 X1 \in k2_zfmisc_1 X2 X3) \Leftrightarrow ((X0 \in X2) \wedge (X1 \in X3)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((X0 \in k1_relat_1 (k2_wellord1 X2 X1)) \Rightarrow ((X0 \in k1_relat_1 X2) \wedge (X0 \in X1))) \quad (2)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow ((v6_relat_2 X0) \Leftrightarrow (\forall X1. \forall X2. \neg (X1 \in k1_relat_1 X0) \wedge ((X2 \in k1_relat_1 X0) \wedge ((X1 \neq X2) \wedge ((\neg k4_tarski X1 X2 \in X0) \wedge (\neg k4_tarski X2 X1 \in X0)))))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X0) \Rightarrow (v1_relat_1 (k2_wellord1 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. k2_wellord1 X0 X1 = k3_xboole_0 X0 (k2_zfmisc_1 X1 X1)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k3_xboole_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \quad (6)$$

Theorem 1

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow ((v6_relat_2 X1) \Rightarrow (v6_relat_2 (k2_wellord1 X1 X0)))$$